```
$%^STN;HighlightOn=  ***;HighlightOff=***  ;
Connecting via Winsock to STN



Welcome to STN International!  Enter x:x

LOGINID:SSSPTA1800EXS

PASSWORD:
TERMINAL (ENTER 1, 2, 3, OR ?):2


* * * * * * * * * *   Welcome to STN International   * * * * * * * * * *

 NEWS  1           Web Page URLs for STN Seminar Schedule - N. America
 NEWS  2           "Ask CAS" for self-help around the clock
 NEWS  3  JUL 12   BEILSTEIN enhanced with new display and select options,
                   resulting in a closer connection to BABS
 NEWS  4  AUG 02   IFIPAT/IFIUDB/IFICDB reloaded with new search and display
                   fields
 NEWS  5  AUG 02   CAplus and CA patent records enhanced with European and Japan
                   Patent Office Classifications
 NEWS  6  AUG 02   The Analysis Edition of STN Express with Discover!
                   (Version 7.01 for Windows) now available
 NEWS  7  AUG 27   BIOCOMMERCE: Changes and enhancements to content coverage
 NEWS  8  AUG 27   BIOTECHABS/BIOTECHDS: Two new display fields added for legal
                   status data from INPADOC
 NEWS  9  SEP 01   INPADOC: New family current-awareness alert (SDI) available
 NEWS 10  SEP 01   New pricing for the Save Answers for SciFinder Wizard within
                   STN Express with Discover!
 NEWS 11  SEP 01   New display format, HITSTR, available in WPIDS/WPINDEX/WPIX
 NEWS 12  SEP 27   STANDARDS will no longer be available on STN
 NEWS 13  SEP 27   SWETSCAN will no longer be available on STN
 NEWS 14  OCT 28   KOREAPAT now available on STN

 NEWS EXPRESS  OCTOBER 29 CURRENT WINDOWS VERSION IS V7.01A, CURRENT
               MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),
               AND CURRENT DISCOVER FILE IS DATED 11 AUGUST 2004
 NEWS HOURS    STN Operating Hours Plus Help Desk Availability
 NEWS INTER    General Internet Information
 NEWS LOGIN    Welcome Banner and News Items
 NEWS PHONE    Direct Dial and Telecommunication Network Access to STN
 NEWS WWW      CAS World Wide Web Site (general information)

Enter NEWS followed by the item number or name to see news on that
specific topic.

  All use of STN is subject to the provisions of the STN Customer
  agreement.  Please note that this agreement limits use to scientific
  research.  Use for software development or design or implementation
  of commercial gateways or other similar uses is prohibited and may
  result in loss of user privileges and other penalties.

  * * * * * * * * * * * * * * STN  Columbus  * * * * * * * * * * * * * * *

FILE 'HOME' ENTERED AT 19:34:40 ON 09 NOV 2004

=> file .eliz
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                     0.21       0.21

FILE 'MEDLINE' ENTERED AT 19:34:51 ON 09 NOV 2004

FILE 'SCISEARCH' ENTERED AT 19:34:51 ON 09 NOV 2004
Copyright (c) 2004 The Thomson Corporation.

FILE 'LIFESCI' ENTERED AT 19:34:51 ON 09 NOV 2004
COPYRIGHT (C) 2004 Cambridge Scientific Abstracts (CSA)

FILE 'BIOTECHDS' ENTERED AT 19:34:51 ON 09 NOV 2004
COPYRIGHT (C) 2004 THE THOMSON CORPORATION
```

```
FILE 'BIOSIS' ENTERED AT 19:34:51 ON 09 NOV 2004
Copyright (c) 2004 The Thomson Corporation.

FILE 'EMBASE' ENTERED AT 19:34:51 ON 09 NOV 2004
COPYRIGHT (C) 2004 Elsevier Inc. All rights reserved.

FILE 'HCAPLUS' ENTERED AT 19:34:51 ON 09 NOV 2004
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2004 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'NTIS' ENTERED AT 19:34:51 ON 09 NOV 2004
Compiled and distributed by the NTIS, U.S. Department of Commerce.
It contains copyrighted material.
All rights reserved. (2004)

FILE 'ESBIOBASE' ENTERED AT 19:34:51 ON 09 NOV 2004
COPYRIGHT (C) 2004 Elsevier Science B.V., Amsterdam. All rights reserved.

FILE 'BIOTECHNO' ENTERED AT 19:34:51 ON 09 NOV 2004
COPYRIGHT (C) 2004 Elsevier Science B.V., Amsterdam. All rights reserved.

FILE 'WPIDS' ENTERED AT 19:34:51 ON 09 NOV 2004
COPYRIGHT (C) 2004 THE THOMSON CORPORATION

=> s pyruvate carboxylase
L1        9511 PYRUVATE CARBOXYLASE

=> s l1 (5a) aspart?
L2         190 L1 (5A) ASPART?

=> s l2 (5a) inhibit?
  10 FILES SEARCHED...
L3          26 L2 (5A) INHIBIT?

=> dup rem l3
PROCESSING COMPLETED FOR L3
L4           10 DUP REM L3 (16 DUPLICATES REMOVED)

=> d 1-10

L4    ANSWER 1 OF 10  BIOTECHDS COPYRIGHT 2004 THE THOMSON CORP. on STN
      DUPLICATE 1
AN    2002-16323  BIOTECHDS
TI    Novel mutated, feedback resistant pyruvate carboxylase enzyme
      polypeptide, useful for producing amino acids e.g. L-lysine, L-threonine,
      L-glycine, L-glutamic acid, L-proline and L-methionine and L-isoleucine;
         plasmid-mediated recombinant enzyme gene transfer and expression in
         Corynebacterium sp.
AU    HANKE P D
PA    ARCHER-DANIELS MIDLAND CO
PI    WO 2002031158 18 Apr 2002
AI    WO 2000-US31893 13 Oct 2000
PRAI  US 2000-239913 13 Oct 2000
DT    Patent
LA    English
OS    WPI: 2002-463267 [49]

L4   ANSWER 2 OF 10     MEDLINE on STN                    DUPLICATE 2
AN   2002646773     MEDLINE
DN   PubMed ID: 12406733
TI   Effect of pyruvate carboxylase overexpression on the physiology of
     Corynebacterium glutamicum.
AU   Koffas Mattheos A G; Jung Gyoo Yeol; Aon Juan C; Stephanopoulos Gregory
CS   Department of Chemical Engineering, Massachusetts Institute of Technology,
     Cambridge, Massachusetts 02139, USA.
SO   Applied and environmental microbiology, (2002 Nov) 68 (11) 5422-8.
     Journal code: 7605801. ISSN: 0099-2240.
CY   United States
DT   Journal; Article; (JOURNAL ARTICLE)
LA   English
FS   Priority Journals
EM   200212
ED   Entered STN: 20021031
     Last Updated on STN: 20021218
     Entered Medline: 20021217
```

L4 ANSWER 3 OF 10 WPIDS COPYRIGHT 2004 THE THOMSON CORP on STN
AN 1995-106843 [14] WPIDS
DNC C1995-048689
TI Variant of phospho-enol ***pyruvate*** ***carboxylase*** - not substantially ***inhibited*** by ***aspartic*** acid, is used for efficient production of amino acids.
DC B04 B05 D16 E19
IN IZUI, K; MATSUI, H; SUGIMOTO, M; SUZUKI, T; HIROSHI, M; MASAKAZU, S; TOMOKO, S; TOYAMA, T; MATSUI, H H
PA (AJIN) AJINOMOTO KK
CYC 32
PI WO 9506114 A1 19950302 (199514)* JA 77 C12N009-88
RW: AT BE CH DE DK ES FR GB GR IE IT LU MC NL PT SE
W: AU BR CA CN CZ HU KR PL RU SK US VN
AU 9480991 A 19950321 (199526) C12N009-88
JP 07111890 A 19950502 (199526) 16 C12N009-00
JP 08070860 A 19960319 (199621) 26 C12N009-00
CZ 9600524 A3 19960612 (199631) C12N009-88
EP 723011 A1 19960724 (199634) EN 50 C12N009-88
R: AT BE CH DE DK ES FR GB GR IE IT LI LU MC NL PT SE
SK 9600204 A3 19961106 (199702) C12N009-88
BR 9407625 A 19970121 (199710) C12N009-88
AU 682547 B 19971009 (199749) C12N009-88
CN 1133615 A 19961016 (199802) C12N009-88
EP 723011 A4 19970101 (199841) C12N009-88
US 5876983 A 19990302 (199916) C12P013-04
US 5919694 A 19990706 (199933) C07H021-04
JP 3013711 B2 20000228 (200015) 16 C12N009-00
RU 2133772 C1 19990727 (200030) C12N009-88
MX 195842 B 20000404 (200124) C07H021-004
HU 219600 B 20010528 (200140) C12N009-88
CZ 289051 B6 20011017 (200172) C12N009-88
EP 723011 B1 20020703 (200243) EN C12N009-88
R: AT BE CH DE DK ES FR GB GR IE IT LI LU MC NL PT SE
DE 69430919 E 20020808 (200259) C12N009-88
KR 337959 B 20021123 (200333) C12N009-88
SK 283369 B6 20030603 (200345) C12N009-88
PH 1199448842 B1 20020416 (200382) C12N015-00
ADT WO 9506114 A1 WO 1994-JP1365 19940817; AU 9480991 A AU 1994-80991 19940817; JP 07111890 A JP 1994-196777 19940822; JP 08070860 A JP 1994-196778 19940822; CZ 9600524 A3 CZ 1996-524 19940817; EP 723011 A1 EP 1994-924384 19940817, WO 1994-JP1365 19940817; SK 9600204 A3 WO 1994-JP1365 19940817, SK 1996-204 19940817; BR 9407625 A BR 1994-7625 19940817, WO 1994-JP1365 19940817; AU 682547 B AU 1994-80991 19940817; CN 1133615 A CN 1994-193905 19940817; EP 723011 A4 EP 1994-924384 19940817; US 5876983 A WO 1994-JP1365 19940817, US 1996-596366 19960429; US 5919694 A Div ex WO 1994-JP1365 19940817, Div ex US 1996-596366 19960429, US 1997-967104 19971110; JP 3013711 B2 JP 1994-196777 19940822; RU 2133772 C1 WO 1994-JP1365 19940817, RU 1996-107112 19940817; MX 195842 B MX 1994-6418 19940823; HU 219600 B WO 1994-JP1365 19940817, HU 1996-240 19940817; CZ 289051 B6 WO 1994-JP1365 19940817, CZ 1996-524 19940817; EP 723011 B1 EP 1994-924384 19940817, WO 1994-JP1365 19940817; DE 69430919 E DE 1994-630919 19940817, EP 1994-924384 19940817, WO 1994-JP1365 19940817; KR 337959 B WO 1994-JP1365 19940817, KR 1996-700741 19960214; SK 283369 B6 WO 1994-JP1365 19940817, SK 1996-204 19940817; PH 1199448842 B1 PH 1994-48842 19940823
FDT AU 9480991 A Based on WO 9506114; EP 723011 A1 Based on WO 9506114; BR 9407625 A Based on WO 9506114; AU 682547 B Previous Publ. AU 9480991, Based on WO 9506114; US 5876983 A Based on WO 9506114; JP 3013711 B2 Previous Publ. JP 07111890; RU 2133772 C1 Based on WO 9506114; HU 219600 B Previous Publ. HU 73690, Based on WO 9506114; CZ 289051 B6 Previous Publ. CZ 9600524, Based on WO 9506114; EP 723011 B1 Based on WO 9506114; DE 69430919 E Based on EP 723011, Based on WO 9506114; KR 337959 B Previous Publ. KR 96704029, Based on WO 9506114; SK 283369 B6 Previous Publ. SK 9600204, Based on WO 9506114
PRAI JP 1993-209775 19930824; JP 1993-209776 19930824; JP 1994-153876 19940705
IC ICM C07H021-004; C07H021-04; C12N009-00; C12N009-88; C12N015-00; C12P013-04
ICS C12N001-020; C12N001-20; C12N001-21; C12N009-18; C12N015-03; C12N015-11; C12N015-52; C12P013-06; C12P013-08; C12P013-10; C12P013-12; C12P013-14; C12P013-24
ICA C12N015-09
ICI C12N001-21, C12R001:01; C12N001-21, C12R001:185; C12N009-00, C12R001:01; C12N009-00, C12R001:185; C12P013-06, C12R001:185; C12P013-06,

C12R001:01; C12P013-08, C12R001:185; C12P013-08, C12R001:01; C12P013-10, C12R001:185; C12P013-10, C12R001:01; C12P013-12, C12R001:185; C12P013-14, C12R001:185; C12P013-14, C12R001:01; C12P013-24, C12R001:185; C12P013-24, C12R001:01; C12N009-00, C12R001:185; C12N009-00, C12R001:01; C12N001-21, C12R001:185; C12N001-21, C12R001:01; C12N015-09, C12R001:185; C12P013-06, C12R001:185; C12P013-06, C12R001:01; C12P013-08, C12R001:185; C12P013-08, C12R001:01; C12N009-00, C12R001:185; C12N009-00, C12R001:01; C12N015-09, C12R001:185

L4 ANSWER 4 OF 10 MEDLINE on STN DUPLICATE 3
AN 89374349 MEDLINE
DN PubMed ID: 2775312
TI Potentiation of benzoate toxicity by glyoxylate. Inhibition of pyruvate carboxylase and the urea cycle.
AU Cyr D M; Tremblay G C
CS Department of Biochemistry and Biophysics, University of Rhode Island, Kingston 02881.
NC DK33536 (NIDDK)
SO Biochemical pharmacology, (1989 Sep 1) 38 (17) 2919-23.
Journal code: 0101032. ISSN: 0006-2952.
CY ENGLAND: United Kingdom
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 198909
ED Entered STN: 19900309
Last Updated on STN: 19990129
Entered Medline: 19890927

L4 ANSWER 5 OF 10 MEDLINE on STN DUPLICATE 4
AN 88139221 MEDLINE
DN PubMed ID: 3325498
TI Regulation of reductive production of succinate under anaerobic conditions in baker's yeast.
AU Muratsubaki H
CS Department of Clinical Biochemistry, Faculty of Health Science, Kyorin University, Tokyo.
SO Journal of biochemistry, (1987 Oct) 102 (4) 705-14.
Journal code: 0376600. ISSN: 0021-924X.
CY Japan
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 198803
ED Entered STN: 19900308
Last Updated on STN: 19900308
Entered Medline: 19880325

L4 ANSWER 6 OF 10 MEDLINE on STN DUPLICATE 5
AN 86164336 MEDLINE
DN PubMed ID: 3514213
TI Pyruvate carboxylase from Saccharomyces cerevisiae. Quaternary structure, effects of allosteric ligands and binding of avidin.
AU Rohde M; Lim F; Wallace J C
SO European journal of biochemistry / FEBS, (1986 Apr 1) 156 (1) 15-22.
Journal code: 0107600. ISSN: 0014-2956.
CY GERMANY, WEST: Germany, Federal Republic of
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 198605
ED Entered STN: 19900321
Last Updated on STN: 19900321
Entered Medline: 19860519

L4 ANSWER 7 OF 10 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on STN
AN 1982:255011 BIOSIS
DN PREV198274027491; BA74:27491
TI EFFECT OF SALT STRESS ON THE STRUCTURE AND CARBON FLOW MECHANISM IN A NOXIOUS WEED PARTHENIUM-HYSTEROPHORUS.
AU HEGDE B A [Reprint author]; PATIL T M
CS DEP BOTANY, SHIVAJI UNIV, KOLHAPUR 416004, INDIA
SO Weed Research, (1982) Vol. 22, No. 1, pp. 51-56.
CODEN: WEREAT. ISSN: 0043-1737.

DT Article
FS BA
LA ENGLISH

L4 ANSWER 8 OF 10 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1971:506589 HCAPLUS
DN 75:106589
TI Reaction mechanism and regulation of pyruvate carboxylase in Penicillium camemberti
AU Stan, H. J.
CS Inst. Lebensmittelchem. Lebensmitteltechnol., Tech. Uni., Berlin, Fed. Rep. Ger.
SO Ernaehrungs-Umschau (1971), 18(6), 257-8
CODEN: ERUMAT; ISSN: 0174-0008
DT Journal
LA German

L4 ANSWER 9 OF 10 MEDLINE on STN
AN 67178602 MEDLINE
DN PubMed ID: 5970498
TI ***Inhibition*** of yeast ***pyruvate*** ***carboxylase*** by L- ***aspartate*** and oxaloacetate.
AU Palacian E; de Torrontegui G; Losada M
SO Biochemical and biophysical research communications, (1966 Sep 8) 22 (5) 644-9.
Journal code: 0372516. ISSN: 0006-291X.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 196709
ED Entered STN: 19900101
Last Updated on STN: 19970203
Entered Medline: 19670907

L4 ANSWER 10 OF 10 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1966:484246 HCAPLUS
DN 65:84246
OREF 65:15824f-g
TI ***Inhibition*** of yeast ***pyruvate*** ***carboxylase*** by l- ***aspartate*** and oxaloacetate
AU Palacian, E.; de Torrontegui, G.; Losada, M.
CS Inst. Biol. Celular, Madrid
SO Biochemical and Biophysical Research Communications (1966), 24(5), 644-9
CODEN: BBRCA9; ISSN: 0006-291X
DT Journal
LA English

=> d 9, 10 ab

L4 ANSWER 9 OF 10 MEDLINE on STN

L4 ANSWER 10 OF 10 HCAPLUS COPYRIGHT 2004 ACS on STN
AB L-Aspartate (noncompetitively) and oxaloacetate (competitively) inhibited bakers' yeast pyruvate carboxylase. Since the oxalacetate formed by the carboxylation of pyruvate in yeast can be removed for the synthesis of aspartate, pyruvate carboxylase can be regarded as the 1st enzyme of the pathway leading from pyruvate to aspartate. The ***inhibition*** of ***pyruvate*** ***carboxylase*** activity by L- ***aspartate*** might be considered an allosteric ***inhibition*** by end-product, and might be important in the regulation of the oxalacetate level within the cell.

=> dis his

(FILE 'HOME' ENTERED AT 19:34:40 ON 09 NOV 2004)

FILE 'MEDLINE, SCISEARCH, LIFESCI, BIOTECHDS, BIOSIS, EMBASE, HCAPLUS, NTIS, ESBIOBASE, BIOTECHNO, WPIDS' ENTERED AT 19:34:51 ON 09 NOV 2004
L1 9511 S PYRUVATE CARBOXYLASE
L2 190 S L1 (5A) ASPART?
L3 26 S L2 (5A) INHIBIT?
L4 10 DUP REM L3 (16 DUPLICATES REMOVED)

```
=> log h
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                      ENTRY    SESSION
FULL ESTIMATED COST                                   27.37      27.58

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)          SINCE FILE      TOTAL
                                                      ENTRY    SESSION
CA SUBSCRIBER PRICE                                   -0.70      -0.70

 SESSION WILL BE HELD FOR 60 MINUTES
STN INTERNATIONAL SESSION SUSPENDED AT 19:38:12 ON 09 NOV 2004
```

WEST Search History

Hide Items | Restore | Clear | Cancel

DATE: Tuesday, November 09, 2004

Hide?	Set Name	Query	Hit Count
	DB=PGPB,USPT,USOC,EPAB,JPAB,DWPI; PLUR=YES; OP=ADJ		
☐	L3	L2 with inhibition	11
☐	L2	L1 with aspart$	180
☐	L1	pyruvate carboxylase	908

END OF SEARCH HISTORY

h e b b cg b chh e f c e e b

Hit List

Clear | Generate Collection | Print | Fwd Refs | Bkwd Refs | Generate OACS

Search Results - Record(s) 1 through 10 of 11 returned.

☐ 1. Document ID: US 20030103935 A1

Using default format because multiple data bases are involved.

L3: Entry 1 of 11 File: PGPB Jun 5, 2003

PGPUB-DOCUMENT-NUMBER: 20030103935
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20030103935 A1

TITLE: Soluble variants of type I membrane proteins, and methods of using them

PUBLICATION-DATE: June 5, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Linnenbach, Alban J.	Philadelphia	PA	US	
Koprowski, Hilary	Wynnewood	PA	US	
Herlyn, Dorothee	Wynnewood	PA	US	

US-CL-CURRENT: 424/85.1; 424/185.1, 424/85.2, 424/85.4

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw De

☐ 2. Document ID: US 20030087381 A1

L3: Entry 2 of 11 File: PGPB May 8, 2003

PGPUB-DOCUMENT-NUMBER: 20030087381
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20030087381 A1

TITLE: Metabolically engineered organisms for enhanced production of oxaloacetate-derived biochemicals

PUBLICATION-DATE: May 8, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Gokarn, Ravi R.	Plymouth	MN	US	
Eiteman, Mark A.	Athens	GA	US	
Altman, Elliot	Athens	GA	US	

h e b b g e e e f e ef b e

US-CL-CURRENT: 435/69.1; 435/193, 435/252.3, 435/252.33, 435/320.1, 536/23.2

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw De

☐ 3. Document ID: US 20020177202 A1

L3: Entry 3 of 11 File: PGPB Nov 28, 2002

PGPUB-DOCUMENT-NUMBER: 20020177202
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20020177202 A1

TITLE: Feedback-resistant pyruvate carboxylase gene from corynebacterium

PUBLICATION-DATE: November 28, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Hanke, Paul D.	Aurora	IL	US	

US-CL-CURRENT: 435/189; 435/193, 435/320.1, 435/325, 435/69.1, 536/23.2

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw De

☐ 4. Document ID: US 6645498 B1

L3: Entry 4 of 11 File: USPT Nov 11, 2003

US-PAT-NO: 6645498
DOCUMENT-IDENTIFIER: US 6645498 B1

TITLE: Soluble variants of type I membrane proteins, and methods of using them

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw De

☐ 5. Document ID: US 6455284 B1

L3: Entry 5 of 11 File: USPT Sep 24, 2002

US-PAT-NO: 6455284
DOCUMENT-IDENTIFIER: US 6455284 B1

TITLE: Metabolically engineered E. coli for enhanced production of oxaloacetate-derived biochemicals

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw De

☐ 6. Document ID: US 5766925 A

h e b b g e e e f e ef b e

L3: Entry 6 of 11 File: USPT Jun 16, 1998

US-PAT-NO: 5766925
DOCUMENT-IDENTIFIER: US 5766925 A

TITLE: Method of producing L-lysine

Full | Title | Citation | Front | Review | Classification | Date | Reference | | | Claims | KWIC | Draw De

---

☐ 7. Document ID: US 5279942 A

L3: Entry 7 of 11 File: USPT Jan 18, 1994

US-PAT-NO: 5279942
DOCUMENT-IDENTIFIER: US 5279942 A

TITLE: Detection of pregnancy by identification of the C peptide of relaxin in body fluids of animals

Full | Title | Citation | Front | Review | Classification | Date | Reference | | | Claims | KWIC | Draw De

---

☐ 8. Document ID: US 5120660 A

L3: Entry 8 of 11 File: USPT Jun 9, 1992

US-PAT-NO: 5120660
DOCUMENT-IDENTIFIER: US 5120660 A

TITLE: Method for canine fertility detection

Full | Title | Citation | Front | Review | Classification | Date | Reference | | | Claims | KWIC | Draw De

---

☐ 9. Document ID: US 5089419 A

L3: Entry 9 of 11 File: USPT Feb 18, 1992

US-PAT-NO: 5089419
DOCUMENT-IDENTIFIER: US 5089419 A

TITLE: Detection of pregnancy by identification of the C peptide of relaxin in the urine of animals

Full | Title | Citation | Front | Review | Classification | Date | Reference | | | Claims | KWIC | Draw De

---

☐ 10. Document ID: BR 200114532 A, WO 200231158 A2, AU 200213146 A, US 20020177202 A1, EP 1325135 A2

L3: Entry 10 of 11 File: DWPI Dec 30, 2003

h e b b g e e e f e ef b e

DERWENT-ACC-NO: 2002-463267
DERWENT-WEEK: 200409

TITLE: Novel mutated, feedback resistant pyruvate carboxylase enzyme polypeptide, useful for producing amino acids e.g. L-lysine, L-threonine, L-glycine, L-glutamic acid, L-proline and L-methionine and L-isoleucine

Terms	Documents
L2 with inhibition	11

h e b b g e e e f e ef b e

Hit List

Clear | Generate Collection | Print | Fwd Refs | Bkwd Refs | Generate OACS

Search Results - Record(s) 11 through 11 of 11 returned.

☐ 11. Document ID: PH 1199448842 B1, WO 9506114 A1, AU 9480991 A, JP 07111890 A, JP 08070860 A, CZ 9600524 A3, EP 723011 A1, SK 9600204 A3, BR 9407625 A, AU 682547 B, CN 1133615 A, EP 723011 A4, US 5876983 A, US 5919694 A, JP 3013711 B2, RU 2133772 C1, MX 195842 B, HU 219600 B, CZ 289051 B6, EP 723011 B1, DE 69430919 E, KR 337959 B, SK 283369 B6

Using default format because multiple data bases are involved.

L3: Entry 11 of 11 File: DWPI Apr 16, 2002

DERWENT-ACC-NO: 1995-106843
DERWENT-WEEK: 200382

TITLE: Variant of phospho-enol pyruvate carboxylase - not substantially inhibited by aspartic acid, is used for efficient production of amino acids

INVENTOR: IZUI, K; MATSUI, H ; SUGIMOTO, M ; SUZUKI, T ; HIROSHI, M ; MASAKAZU, S ; TOMOKO, S ; TOYAMA, T ; MATSUI, H H

PRIORITY-DATA: 1994JP-0153876 (July 5, 1994), 1993JP-0209775 (August 24, 1993), 1993JP-0209776 (August 24, 1993)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
PH 1199448842 B1	April 16, 2002		000	C12N015/00
WO 9506114 A1	March 2, 1995	J	077	C12N009/88
AU 9480991 A	March 21, 1995		000	C12N009/88
JP 07111890 A	May 2, 1995		016	C12N009/00
JP 08070860 A	March 19, 1996		026	C12N009/00
CZ 9600524 A3	June 12, 1996		000	C12N009/88
EP 723011 A1	July 24, 1996	E	050	C12N009/88
SK 9600204 A3	November 6, 1996		000	C12N009/88
BR 9407625 A	January 21, 1997		000	C12N009/88
AU 682547 B	October 9, 1997		000	C12N009/88
CN 1133615 A	October 16, 1996		000	C12N009/88
EP 723011 A4	January 1, 1997		000	C12N009/88
US 5876983 A	March 2, 1999		000	C12P013/04
US 5919694 A	July 6, 1999		000	C07H021/04
JP 3013711 B2	February 28, 2000		016	C12N009/00
RU 2133772 C1	July 27, 1999		000	C12N009/88
MX 195842 B	April 4, 2000		000	C07H021/004
HU 219600 B	May 28, 2001		000	C12N009/88
CZ 289051 B6	October 17, 2001		000	C12N009/88

h e b b cg b cc e

EP 723011 B1	July 3, 2002	E	000	C12N009/88
DE 69430919 E	August 8, 2002		000	C12N009/88
KR 337959 B	November 23, 2002		000	C12N009/88
SK 283369 B6	June 3, 2003		000	C12N009/88

C1 , MX 195842 B INT-CL (IPC): C07H 21/004; C07H 21/04; C12N 1/020; C12N 1/20; C12N 1/21; C12N 9/00; C12N 9/18; C12N 9/88; C12N 15/00; C12N 15/03; C12N 15/09; C12N 15/11; C12N 15/52; C12P 13/04; C12P 13/06; C12P 13/08; C12P 13/10; C12P 13/12 ; C12P 13/14; C12P 13/24; C12N 1/21; C12R 1/01; C12N 1/21; C12R 1/185; C12N 9/00; C12R 1/01; C12N 9/00; C12R 1/185; C12P 13/06; C12R 1/185; C12P 13/06; C12R 1/01; C12P 13/08; C12R 1/185; C12P 13/08; C12R 1/01; C12P 13/10; C12R 1/185; C12P 13/10; C12R 1/01; C12P 13/12; C12R 1/185; C12P 13/14; C12R 1/185; C12P 13/14 ; C12R 1/01; C12P 13/24; C12R 1/185; C12P 13/24; C12R 1/01; C12N 9/00; C12R 1/185; C12N 9/00; C12R 1/01; C12N 1/21; C12R 1/185; C12N 1/21; C12R 1/01; C12N 15/09; C12R 1/185; C12P 13/06; C12R 1/185; C12P 13/06; C12R 1/01; C12P 13/08; C12R 1/185; C12P 13/08; C12R 1/01; C12N 9/00; C12R 1/185; C12N 9/00; C12R 1/01; C12N 15/09; C12R 1/185

Terms	Documents
L2 with inhibition	11

h e b b cg b cc e

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
18 April 2002 (18.04.2002)

PCT

(10) International Publication Number
WO 02/31158 A2

(51) International Patent Classification[7]: C12N 15/52, 9/00, C12P 13/04, 13/08, C12N 1/21 // (C12N 1/21, C12R 1:15)

(21) International Application Number: PCT/US01/31893

(22) International Filing Date: 12 October 2001 (12.10.2001)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/239,913 13 October 2000 (13.10.2000) US

(71) Applicant: ARCHER-DANIELS-MIDLAND COMPANY [US/US]; 4666 Faries Parkway, Decatur, IL 62526 (US).

(72) Inventor: HANKE, Paul, D.; 2565 Autumn Grove Court, Aurora, IL 60504 (US).

(74) Agents: LUDWIG, Steven, R. et al.; Sterne, Kessler, Goldstein & Fox P.L.L.C., Suite 600, 1100 New York Avenue, N.W., Washington, DC 20005-3934 (US).

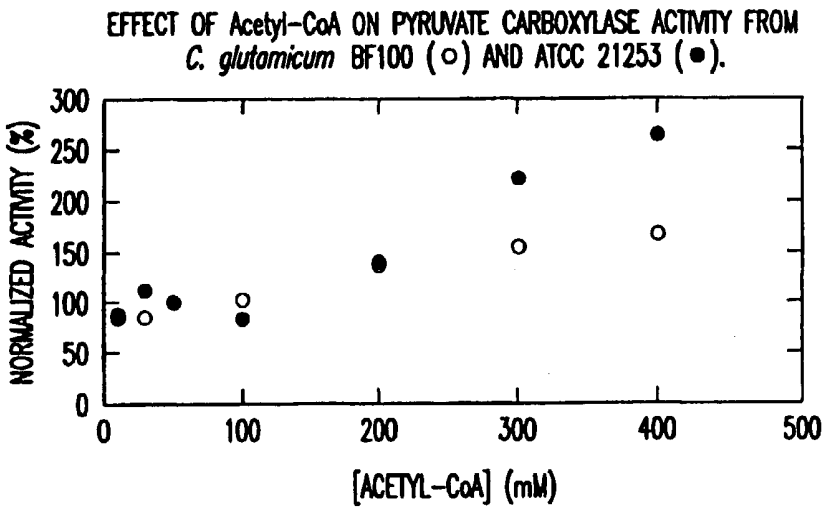
(81) Designated States *(national)*: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW.

(84) Designated States *(regional)*: ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:
— *without international search report and to be republished upon receipt of that report*
— *with (an) indication(s) in relation to deposited biological material furnished under Rule 13bis separately from the description*

[Continued on next page]

(54) Title: FEEDBACK-RESISTANT PYRUVATE CARBOXYLASE GENE FROM CORYNEBACTERIUM



(57) Abstract: The present invention relates to a mutated pyruvate carboxylase gene from *Corynebacterium*. The mutant pyruvate carboxylase gene encodes a pyruvate carboxylase enzyme which is resistant to feedback inhibition from aspartic acid. The present invention also relates to a method of replacing the wild-type pyruvate carboxylase gene in *Corynebacterium* with this feedback-resistant pyruvate carboxylase gene. The present invention further relates to methods of the production of amino acids, preferably lysine, comprising the use of this mutant pyruvate carboxylase enzyme in microorganisms.

WO 02/31158 A2